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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,965	06/27/2001	Rick A. Hamilton II	AUS920010551US1	3809

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EXAMINER

LE, KHANH H

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/892,965

**Applicant(s)**

HAMILTON, RICK A.

**Examiner**

Khanh H. Le

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/7/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is in response to Applicant's Response and Amendment dated March 7, 2005. Claims 1-21 are now pending. Claims 1, 10, 19 are independent.

#### *Claim Rejections - 35 USC §101*

2. *Previous rejections of claims 1-21 under 35 U.S.C. 101 are maintained.*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter.**

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas".

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See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. In *re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but

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rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the *Freeman-Walter-Abele* test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

Thus the present basis for a 35 USC 101 inquiry is a two-prong test :

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

As to the second prong of the test, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces receiving an award request ; determining if the customer has a number of points to meet a predetermined number of points corresponding to the award request; and authorizing a points overdraft (i.e., repeatable) to promote customer loyalty and provide benefits for customers (i.e., useful and tangible).

However claims 1-18 fail the first prong of the test.

Under this test, for a process claim to pass muster under the "technological arts" prong, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case, for example, claim 1 has no connection to the technological arts. The recited steps of merely receiving an award request determining if the customer has a number of points to meet a predetermined number of points corresponding to the award request; and authorizing a points overdraft does not apply, involve,

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use, or advance the technological arts since all of the recited steps can be performed manually and physically between 2 persons, in their minds and by use of a pencil and paper.

As to technological arts recited in the preamble, mere recitation in the preamble or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea which is without connection to the technological arts **unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble.**

In the present case, none of the recited steps, are directed to anything in the technological arts as explained above. Looking at the claim as a whole, nothing in **the body of the claim** recites any structure or functionality to suggest that a computer performs the recited steps.

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1-18 are deemed to be directed to non-statutory subject matter.

To overcome this rejection the Examiner recommends that Applicant amend the claims to better clarify which of the steps are being performed within the technological arts, such as incorporating a computer network or electronic network into the steps in a non-trivial manner (not just in the preamble); for example:

“receiving an award request ;

using a computer determining if the customer has a number of points to meet a predetermined number of points corresponding to the award request; and  
using a computer authorizing a points overdraft....” .

The other claims could be similarly amended to include a computer network.

**Response to remarks**

5. Applicant's remarks as to previous art rejections have been considered but rendered moot as new rejections are applied.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. **Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted art and Shida, US 2002/0087396 in view of "LEAVE INFORMATION, Last Updated 8 May 00, Managing Your Leave: Questions and Answers, <http://www.nps.navy.mil/Code22/leave.htm#Refund%20for%20Unearned%20Leave>, downloaded 5/26/2005.**

As to claims 1-2, 4-5, 7-11, 13-14, and 16-21,

Loyalty points issuance and redemption for awards are admitted art (Specifications p. 1-2). Further, Shida, cited in an earlier Office Action, discloses a computerized system for accumulation and redemption of loyalty points (see at least abstract).

The above references does not specifically disclose allowing an overdraft of points against future points earnings, requiring repayment if the earnings do not match the advanced redeemed points after a certain time, requiring that the customer meet certain criteria including requiring an ability for the business to have access to funds of the debtor if no repayment occurs as claimed.

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However, the Federal Employment Service Leave Information reference cited above (herein FSL) discloses that Sick Leave is earned and is redeemed as needed. One can borrow sick leave against future earnings and has to repay them against earnings, or in cash if one quits before enough leave accumulates.

Thus FSL discloses

A computerized (implicitly because computers are needed to process payrolls and sick leave accounts of the huge federal workforce) system, method and a computer readable medium for providing awards to a customer (employee) comprising:

receiving an award request (getting regular pay while on sick leave);  
determining if the customer has a number of sick leave units to meet a predetermined sick leave units corresponding to the award request; and  
authorizing a sick leave units overdraft if the customer has less than the predetermined number of sick leave units.

determining if the customer has accrued a number of sick leave units equal or greater than the sick leave units overdraft after a predetermined time period has elapsed (implied)

imposing a financial penalty on the customer if the customer has accrued less than the sick leave units overdraft on expiration of the predetermined time period (repay after expiration of employment period) .

wherein the financial penalty includes charging the customer for the price of the award (repay regular pay already paid).

and wherein the authorization of the rewards overdraft is based on customer criteria including a frequency of customer patronage (implicitly only qualified employees (also viewed as



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customers) who frequent the business (federal employment) regularly are allowed such benefits).

and wherein the customer criteria includes a customer authorization to debit a financial instrument (payroll account is debited for any amount due).

Sick leave is analogous to points, as redeemable earnings.

Here the federal Sick Leave policy of allowing borrowing against future earnings is **reasonably pertinent** to the particular problem with which the inventor was concerned. The federal employer wishes to attract, retain the best employees and secure their loyalty by providing the generous sick leave benefits as above-discussed. The commercial vendor has the same motivation to attract and retain loyal customers by providing advanced points as claimed. Thus the reference is analogous arts. See *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992) "*A prior art reference is **analogous** if the reference is in the field of applicant's endeavor **or**, if not, the reference is **reasonably pertinent** to the particular problem with which the inventor was concerned.*"

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow borrowing points against future earnings (just as sick leave) in order to provide benefits to the newer members who haven't had time to accumulate the points (just as for sick leave (see excerpt below) and thereby win their loyalty.

All the other claimed features of borrowing against future points earnings, requiring repayment if the earnings do not match the advanced redeemed points after a certain time, requiring that the customer meet certain criteria including requiring an ability for the business to have access to funds of the debtor if no repayment occurs, parallel the features disclosed in the reference.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add those features to the main claim to provide the balance of providing benefits to customers without thereby hurting the business financially, as implicitly taught by federal government sick leave policy of repayment, penalty (deducting pay due) in case of quitting, and ability to access the debtors' funds in case of no repayment.

(Copied below, for Applicants' convenience, are the relevant sections of the cited reference (pages 5 and 10).

***"Sick Leave...***

***..Q. I don't have enough sick leave, may I borrow sick leave? A. Yes, you may borrow up to 240 hours of sick leave or the amount equal to what you earn in one leave year. Submit an Request for Leave or Approved Absence (SF71) to your supervisor. Include a current leave and earning statement and your doctor's certification. If you are serving under a temporary or term appointment, you may only borrow an amount of sick leave equal to what you are projected to earn."***

***"..Refund for Unearned Leave***

***"....Q. I have not paid back all the advance leave I borrowed recently and now I want to resign. Is this leave going to be taken out of my pay? A. Yes. If you are indebted for unearned leave and are separated from federal service, you will be required to refund the amount paid to you for the period covering the leave for which you are indebted. If you do not refund the amount paid, the agency will deduct that amount from any pay due to you." )***

As to claims 3 and 12,  
the above cited references do not disclose wherein the time period is a range of about one day to about one year. However, Official Notice is taken that it is well-known for businesses to give free benefits for a predetermined period only in order to protect the business financially. For example, insurance companies would allow a grace period before canceling a policy when an insurer is late in paying premiums. It would have been obvious to one skilled in the art at the

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time the invention was made to add, to the main claim as disclosed by the above cited references, requiring repayment within one day to about one year, as the business circumstances dictate, to protect the business finances.

As to claims 6 and 15 (dependent on claims 4, 13 respectively) the above cited references do not disclose wherein the financial penalty includes charging the customer interest based on the price of the award. . However, Official Notice is taken that it is well-known for businesses to charge interest on loans in order to make profits. The points advanced are loans thus it would have been obvious to one skilled in the art at the time the invention was made to add such feature to the main claim to allow the business some profits.

### ***Conclusion***

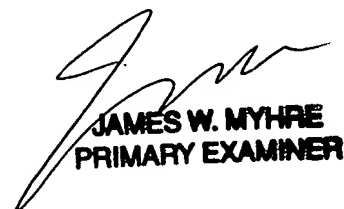
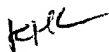
8.. Prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh H. Le whose telephone number is 571-272-6721. The Examiner works a part-time schedule and can normally be reached on Tuesday-Wednesday 9:00-6:00.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eric Stamber can be reached on 571-272-6724. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-3600.

May 27, 2005

KHL



**JAMES W. MYHRE**  
**PRIMARY EXAMINER**